

REMARKS

This Amendment is fully responsive to the non-final Office Action dated October 27, 2010, issued in connection with the above-identified application. Claims 41-45 are pending in the present application. With this Amendment, claims 41-45 have been amended and claim 46 has been added. No new matter has been introduced by the amendments to the claims or by the addition of claim 46. Favorable reconsideration is respectfully requested.

In the Office Action, claims 41-45 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Lee et al. (U.S. Patent No. 5,921,095, hereafter "Lee") in view of Viegas (U.S. Patent No. 6,062,030, hereafter "Viegas"), Linstromberg (U.S. Patent No. 5,060,486, hereafter "Linstromberg"), Goth et al. (U.S. Patent Application No. 2003/0000232, hereafter "Goth"), and Astle et al. (U.S. Publication No. 2003/0168389, hereafter "Astle").

The Applicants have amended independent claim 41 to more clearly distinguish the present invention from the cited prior art. The features of independent claim 41 are distinguishable from the cited prior art for at least the reasons noted below.

First, independent claim 41 recites:

"a refrigerating unit that includes a compressor, a condenser, an expanding mechanism and an evaporator, the refrigerating unit having refrigerating performance conformable to a plurality of refrigerating specifications including a refrigerating specification for refrigeration and a refrigerating specification for freezing" and wherein

"the refrigerating unit with the control unit is detachably mounted to the heat insulating housing so as to be connected to the storage compartment."

In the Office Action, although the Examiner relies on the combination of Lee, Viegas, Linstromberg, Goth and Astle for disclosing all the features recited in independent claim 41, the Examiner relies specifically on Lee for disclosing the features of the claimed "refrigeration unit" of the present invention (as recited in independent claim 41).

In particular, the Examiner relies on col. 5, lines 41-48 and elements 14 and 15 of Lee. Lee in col. 5, lines 41-48 discloses the use of coupling sections 14 and brackets 15 to tightly couple multiple refrigeration units 100, 200 and 300 together, thereby creating an expandable refrigerator. As seen in Fig. 6 of Lee, when the coupling of the refrigeration units is finished, a microcontroller 16 and a display unit 17 for displaying refrigerating and freezing states of the refrigeration units are attached to one of the units.

However, in Lee, the only things that are detachably mounted are the different refrigeration units (i.e., 100, 200 and 300) to each other, and each refrigeration unit (e.g., 100) disclosed in Lee is more accurately equivalent to the refrigeration storage cabinet of the present invention (as recited in independent claim 41).

As described in Lee, each refrigeration unit (i.e., 100, 200 and 300) includes at least a machinery section 10, and an insulation housing 12 (with storage compartment). The machinery section 10 disclosed in Lee is more accurately equivalent to the refrigeration unit of the present invention (as recited in independent claim 41). That is, similar to the machinery section 10 disclosed in Lee, the refrigeration unit of the present invention (as recited in independent claim 41) includes, among other components, a compressor. And, the insulation housing 12 is more accurately equivalent to the heat insulating housing of the present invention (as recited in independent claim 41).

Nothing on a single refrigeration unit (e.g., 100) disclosed in Lee appears to be detachable. In fact, it can be clearly seen in Lee (e.g., Fig. 3A), that the machinery section 10 (which includes the compressor and is equivalent to the claimed “refrigeration unit”) is not detachably connected to the insulation housing 12. Conversely, with the present invention (as recited in independent claim 41), a refrigerating unit (which includes a compressor, a condenser, an expanding mechanism and an evaporator) is detachably mounted to the heat insulating housing so as to be connected to the storage compartment on an individual refrigeration cabinet.

Thus, the detachability of the refrigerating unit of the present invention (as recited in independent claim 41) and the detachability of the multiple refrigeration units in Lee are completely different.

Second, independent claim 41 recites that:

“the identifying means includes a detecting portion provided on the refrigerating unit, and further includes a detected portion provided on the heat insulating housing.”

In the Office Action, although the Examiner relies on the combination of Lee, Viegas, Linstromberg, Goth and Astle for disclosing all the features recited in independent claim 41, the Examiner relies specifically on col. 6, lines 4-16 of Lee for disclosing or suggesting the features of the claimed “identifying means” of the present invention (as recited in independent claim 41).

Lee in col. 6, lines 4-15 discloses a microcontroller 16 (i.e., detecting portion) and a switch 40 (i.e., detected portion), wherein the switch 40 closes a circuit so that signals are

detected by the microcontroller 16. The microcontroller 16 and the switch 40 are part of the refrigerating/freezing function selection circuit, which controls the expandable refrigerator. The microcontroller 16, when the switch is placed in a specific position, selects a corresponding operational state (e.g., refrigerating+refrigerating+freezing) of the expandable refrigerator. However, the switch 40 and the microcontroller 16 are at least located within or on the same structural element (e.g., the machinery section 10, which corresponds to the claimed “refrigeration unit”).

Moreover, in Lee, since the machinery section 10 (which includes the compressor and corresponds to the claimed “refrigeration unit”) is not detachably connected to the insulation housing 12 on a single refrigeration unit (e.g., 100), there is no need to use a detecting portion and a detected portion for detecting the movement therebetween, as in the present invention (as recited in independent claim 41).

Finally, independent claim 41 recites that:

“the detecting portion and the detected portion are moved close to each other when the refrigerating unit is mounted to the heat insulating housing such that the detected portion and the detecting portion are moved to a position with respect to each other during mounting the refrigerating unit to the heat insulating housing which triggers an interaction therebetween.”

With the present invention (as recited in independent claim 41), the detecting portion and the detected portion are used to detect the mounting of a refrigeration unit onto a heat insulating housing based on the interaction therebetween.

In the Office Action, the Examiner again relies specifically on Lee in col. 6, lines 4-15 for disclosing or suggesting the above features of the present invention (as recited in independent claim 41).

However, because the detachability of the refrigerating unit of the present invention (as recited in independent claim 41) and the detachability of the multiple refrigeration units in Lee (as noted above) are completely different, the use of the detecting portion and the detected portion in Lee is also different from that of the present invention (as recited in independent claim 41).

In Lee, the machinery section 10 (which includes the compressor and is equivalent to the claimed “refrigeration unit”) is not detachably connected to the insulation housing 12.

Additionally, the switch 40 and the microcontroller 16 are located within or on the same structural element (e.g., the machinery section 10, which corresponds to the “refrigeration unit”).

Thus, in Lee, there is no need to use a detecting portion and a detected portion to detect when the refrigerating unit is mounted to the heat insulating housing, as in the present invention. Additionally, in Lee, the detected portion and the detecting portion are not moved to a position with respect to each other during mounting the refrigerating unit to the heat insulating housing which triggers an interaction therebetween, as in the present invention (as recited in independent claim 41).

Moreover, even if the Examiner relies on the reed switches disclosed in Astle, there is no motivation based on the configuration of each refrigeration unit in Lee to use the reed switches as the detecting portion and the detected portion on a single refrigeration unit, as in the present invention (as recited in independent claim 41).

Based on the above discussion, no combination of Lee, Viegas, Lindstromberg, Goth and Astle would result in, or otherwise render obvious, independent claim 41. Likewise, no combination of Lee, Viegas, Lindstromberg, Goth and Astle would result in, or otherwise render obvious, claims 42-45 at least by virtue of their dependencies from independent claim 41.

In the Office Action, claim 42 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Lee, Viegas, Lindstromberg, Goth and Astle, and further in view of Valence et al. (U.S. Patent No. 5,600,966, hereafter “Valence”).

Claim 42 depends from independent claim 41. As noted above, Lee, Viegas, Lindstromberg, Goth and Astle fail to disclose or suggest all the features recited in independent claim 41 (as amended). Additionally, Valence fails to overcome the deficiencies noted above in Lee, Viegas, Lindstromberg, Goth and Astle. Accordingly, no combination of Lee, Viegas, Lindstromberg, Goth, Astle and Valence would result in, or otherwise render obvious, claim 42 at least by virtue of its dependency from independent claim 41.

In light of the above, the Applicants submit that all the claims pending in the present application are patentable over the prior art of record. Accordingly, the Applicants respectfully request that the Examiner withdraw the rejection in the Office Action, and pass the present application to issue.

The Examiner is invited to contact the undersign attorney by telephone to resolve any issues remaining in the application.

Respectfully submitted,

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